

Chinese Patent Application No. 01807271.2  
Translated by Jeekai & Partners

[The State Intellectual Property Office, the People's Republic of China]

[51] Int.Cl<sup>6</sup>  
E04F 13/10

## [12] Specification of Utility Model Patent

[21] ZL Patent No. 96233739.0

[45] Date of Registration Announcement:  
May 13, 1998[11] No. of Registration Announcement:  
CN 2281378Y

[22] Filing Date of Application: Sep. 13, 1996

[21] Application No.: 96233739.0

[73] Patentee: Lu Jie  
Address: No. 91, Dongsanduan of Ring  
Road 1, Chengdu, Sichuan Province[74] Patent Agency: Zhongya Patent Office,  
Sichuan Province

[72] Designers: Lu Jie, Lu Hui, Luning

Agent: Feng Yigao

Claims: 1 page  
Description: 4 pages  
Drawings: 2 pages

[54] Title of the Utility Model: Wood Decoration Board

[57] Abstract

The application relates to a building sheet for decoration, which adopts a polywood as the backerboard and thin wood sheets as the facings. The facings and backerboard, being same in thick, are adhered together and then hot pressed to form the building sheet. There are 3~5mm clearances or 60° triangular grooves among the facings for placement of fasteners. The utility model can be widely applied to decorating interior walls, ceilings, pillars, doors, wainscots and the like. The utility model has a natural wood appearance, low thermal expansion, low deformation, long service life, low cost, convenience for use, time saving and wide range of applications.

**Claims**

1. A wood sheet for decoration which is formed by pressing a backerboard and facings together, characterized in that: the wood facings, which are adhered on a polywood as the backerboard, has the same thickness as the backerboard; and there are 3~5mm clearances or 60° triangular grooves for placement of fasteners among the facings.
2. The sheet of claim 1, characterized by: the adhesive applied is a urea formaldehyde resin.
3. The sheet of claim 1, characterized by: the facings are coated by resin protective layers.

### A Wood Building Sheet for Decoration

The utility model relates to a building sheet for decoration.

The decoration materials currently used in the decoration industry and furniture decoration are generally 3~5mm man-made veneer boards, polywood sheets and teakwood sheets. Those materials give people an obsolete feeling since they first presented in the market a quite long time ago, and have short service life while lack of beauty. Particularly for the 3~5mm man-made veneer boards that are in massive production and wide use today, and formed by hot pressing the single sheets which are veneered from logs together, they can not present the effect of truly natural wood.

One of the purposes of the utility model is to provide a new product that combines the advantages of low thermal expansion found in the traditional veneer boards, and the aesthetical effect of natural wood presented by the modern decoration material.

One of the technical solution of the utility model is implemented by the following technical means: provide a backerboard, which comprises 3~7mm veneer sheet of low thermal expansion made of ordinary wood or wood board, a fiber board, a bamboo board (glued bamboo board), and a flake-board; and provide facings on one side of the backerboard, hot press and adhere them together or press and adhere them together at room temperature, the facings are sawed and dried natural wood boards of the same thickness. The wood decoration board made according to this embodiment has the advantages of presenting natural wood feelings with low thermal expansion, low deformation, enhanced strength, advanced quality and prolonged service life. So it can reduce cost and adapt to wide range of applications.

The utility model is implemented in such a way: first, sawing various of logs or beam timbers into thin sheets of the wanted size as the facings, the sheets are then dried after planed one side and edges. The sheets can be dried by steaming or naturally airing. Afterwards, the backerboard can be selected as required. The backerboard can be a man-made veneer board generally having 3, 5 or 7 layers. Usually, a 3-layered board is selected. The facings will be placed with their unplaned surfaces attaching the surface of the veneer board which has been applied adhesive (such as urea formaldehyde resin), and then be sent for hot press. 3~5mm clearances are reserved among the facings on the veneer board for placement of fasteners. Alternatively, each of the wood facings can be chamfered into 30° angles along its longer sides, so 60° triangular grooves will be formed up among the adjacent facings for placement of fasteners in hot pressing.

According to the utility model, when a veneer board having 5 or more layers is adopted as the backerboard to make a wood decoration board by hot pressing it with adhered facings, the decoration board can be splined on both sides along the facing's timber grains for joint of the boards.

The following is the further explanation for the utility model with the help of the

attached figures:

Fig. 1 shows a structure illustration of the utility model's sectional view.

Fig. 2 is a layout illustration of the facings of different width.

Fig. 3 is a structure illustration of the utility model's triangular groove sectional view.

Fig. 4 is a layout illustration of the utility model's facing with triangular grooves.

Fig. 5 is a structure illustration of the utility model's sectional view with both sides spined.

In the figures, a facing is numbered as 1, a backerboard is numbered as 2, adhesive is numbered as 3, and a groove for placement of fasteners is numbered as 4.

The facings of the utility model can be manufactured with 400~600mm long and 50~1300mm wide timbers. Its thickness may be in the range of 3~7mm. The backerboard may be a veneer board of 3, 5 or 7 layers, generally a 3-layer board made from common wood will be exploited as the backerboard. The facings and the backerboard are same thick so as to prevent deformation.

The decoration boards made according to the utility model are usually wood boards being 2500mm long and 1300mm wide. The facings placed on the backerboard can have either the same or different width, hot pressed with the backerboard. Or the facings can be made into different length and width as required (for example, they are generally slim rectangular for the wainscots and wide rectangular for the walls.)

Embodiment 1 is shown in Figs. 1 and 2. The backerboard 2 is a 3-layer board, and the facings 1 are made of natural wood with different sizes, the adhesive 2 is a urea formaldehyde resin. The backerboard and the facings are adhered and then hot pressed together. There are 3~5mm clearances reserved among the natural wood facings for placement of fasteners.

Embodiment 2 is shown in Figs. 3 and 4. It adopts natural wood facings 1 adhered evenly on backerboard 2. Both sides of the facings are chamfered 30°. The facings abutted to each other tightly to form 60° triangle-shaped grooves for placement of fasteners.

Embodiment 3 is shown in Fig. 5. This embodiment is mainly applied at the places requiring thick natural wood decoration boards, such as pillars and wainscots. The boards can be assembled with each other utilizing the splines made on both of their sides.

After mounted to the places as desired for decoration, the utility model can be sprayed on brushed on the surface a layer of transparent varnish for protection. Or alternatively, it can be coated with a layer of unsaturated polyester resin as protective layer, which can both polishers the surface and action for moisture-proof.

The utility model is mainly applied for decoration of internal walls, ceilings, pillars and wainscots as well as some other cases. It has the advantages to present the effects of natural timber with low thermal expansion, low deformation, long service life, low cost, convenience for use, time saving and wide range of applications.

[19]中华人民共和国专利局

[51]Int.Cl<sup>6</sup>

E04F 13/10



## [12]实用新型专利说明书

[21] ZL 专利号 96233739.0

[49]授权公告日 1998年5月13日

[11] 检索公告号 CN 2281378Y

[22]申请日 96.9.13 [24]頒证日 98.4.9

[28]申请号 96233739.0

[73]专利权人 鲁杰

[74]专利代理机构 四川省中亚专利事务所

地址 610051四川省成都市一环路东三段91号

代理人 冯义高

共同专利权人 鲁辉 鲁宁

[72]设计人 鲁杰 鲁辉 鲁宁

权利要求书 1页 说明书 4页 附图页数 2页

[54]实用新型名称 实木装饰板

[57]摘要

本实用新型涉及一种建筑用装饰材料，它用人造胶合板作基板和实木漂板作面板，面板和基板厚度相同，用粘合胶粘接后经热压而成。面板间留有安装固定钉的3—5毫米间隙或50度三角形槽。本实用新型广泛用于室内墙体、天棚、柱、门、窗及其他场合等的装饰。本实用新型具有木胚天然美感，热胀冷缩小、不易变形、使用寿命长、成本低、施工简便、省时和应用范围广。



(BJ)第 1452 号

## 权 利 要 求 书

1. 一种由基板和面板压合制成的实木装饰板，其特征在于：胶合在人造胶合层板作基板上的实木面板厚度与基板相同，面板间有供安装固定钉的1毫米间隙或60度三角形槽。
2. 根据权利要求1所述的实木装饰板，其特征在于：粘合胶为尿醛树脂。
3. 根据权利要求1所述的实木装饰板，其特征在于：面板上有保护层树脂。

## 说 明 书

### 实木装饰板

本实用新型涉及一种建筑用装饰材料。

现在广泛应用于装饰行业及家具中装饰材料，多用一毫米的人造胶合层板、宝丽板和柚木板等，不仅因使用久远有陈旧感，而且使用寿命不长又缺乏美观。特别是产量和用量极大的一毫米的人造胶合层板，是用原木旋切成单板经热压胶合而成，它不能给人一种真正的天然的实木效果。

本实用新型的目的在于提供一种既有人造胶合层板板热胀冷缩极小的优点，又有天然实木美感效果的传统装饰材料与现代装饰材料相结合的新品种。

本实用新型的技术方案是通过如下技术措施来实施的：用热胀冷缩小的普通杂木制造的一毫米的人造层板或木工板、纤维板、竹笆板（竹集成胶合板）、刨花板等作基板，在基板一面与解锯的并经干燥处理的厚度与层板厚度相同的各种天然木质薄板作面板、经热压胶合而成。也可在常温下自然加压胶合制成。用这种方案制成的实木装饰板，既有天然木质美感、热胀冷缩小、不易变形的优点，又能增加成品板强度而提高质量与使用寿命，进而降低成本，同时还有应用范围广等优点。

本实用新型是这样实施的：首先根据需要将各种用作面板的材质和不同长度的原木或方木用锯解成所需规格的薄板后进行单面刨光滑边处理后再进干燥处理。其干燥处理可选用蒸汽干燥或自然风干进行。其次根据规格选用基板。基板可选用普通杂木制造的人造胶合层板，通常视要求用3层、5层或7层层板，一般用3层板即可。将面板没有刨光的面按規定要求放在涂有粘合胶（如尿醛树脂等）的层板平面上送去热压机上进行热压胶合。每个块层板上的面板之间留有一毫米的间隙，作安装时埋入固定钉用。也可采用在每块实木面板两侧长边倒角30度的办法，热压时两块面板边自然紧密靠严两边间所形成的60度三角槽作为安装的固定钉槽。

本实用新型当采用3层以上层板作基板时，在与面板热压胶合成实木装饰板时，可顺面板纹向在装饰板两侧开榫槽，供拼合连接。

下面结合附图对本实用新型作进一步的说明：

图1为本实用新型的横断面结构示意图；

图2为本实用新型不同宽度的面板放置示意图；

图3为本实用新型带三角形槽的横断面结构示意图；

图4为本实用新型带三角形槽的面板布置示意图；

图5为本实用新型两侧开有榫槽的横断面结构示意图。

附图中1为面板、2为基板、3为粘合胶、4为固定钉槽。

本实用新型的面板可选用长度100—600毫米，宽度50—1300毫米的木质制造，其厚度可选用3—1毫米。基板可选用1层、3层或7层的胶合层板，通常大多用杂木制造的1层胶合层板，使用时面板厚度与胶合层板厚度相同，以防止变形。

本实用新型所制成的板面通常为长2500毫米、宽为1300毫米实木装饰板，其面板在基板上的布置可以是等宽度也可用不等宽度的面板与基板热压胶合制造。也可根据需要制成不同长宽尺寸（如墙裙则多为窄长形，而墙面则多组合成宽长形）的板面。

图1、图2为实施例1，基板2用1层板，面板1采用不同宽度尺寸的实木，粘合胶3用尿醛树脂将面板与基板粘合后经热压制成。实木面板间留有供安装固定钉的3—5毫米间隙槽4。

图3、图4为实施例2，它用等宽度实木面板1均匀胶合在基板2上，实木面板两边各倒角10度，热压时严密靠紧成60度三角形槽作安装时固定钉用槽。

图5为实施例3主要用于墙柱和裙和需要较厚的实木装饰板地方，用两侧开的榫槽直接拼合连接。

本实用新型在需要地方装饰后，可喷、刷透明清漆进行

保护，也可涂以不饱和聚脂树脂形成一层透明的树脂保护层，不仅使表面更加光滑，而且起到防潮作用。

本实用新型主要用于室内墙、天棚、柱、裙等装饰，也可用于其他场合。它具有天然木质的美感，热胀冷缩小、不易变形，使用寿命长、成本低、施工简便，省时和应用范围广等优点。

## 说 明 书 附 图

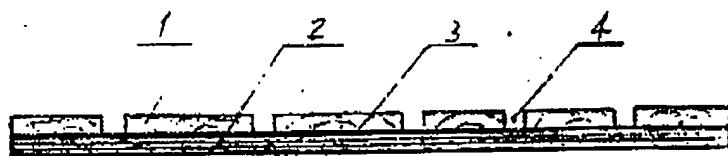


图1 (A-A)

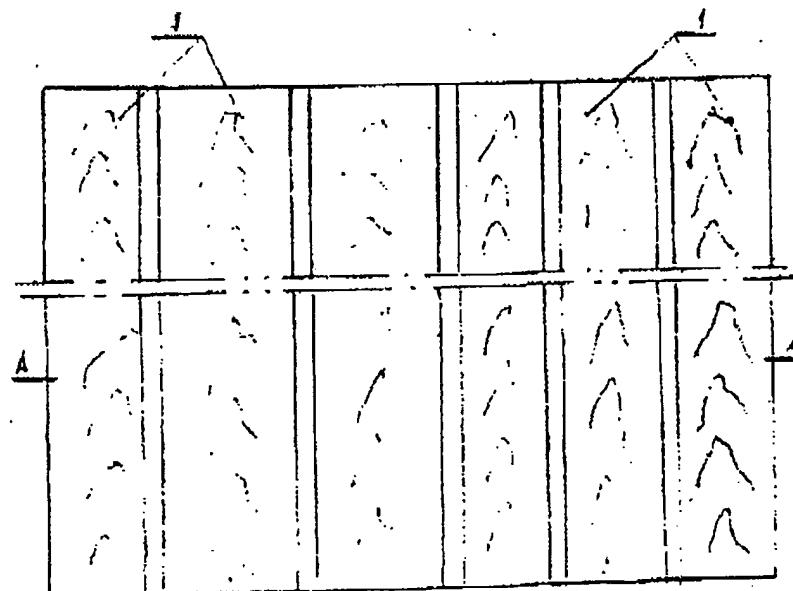


图2

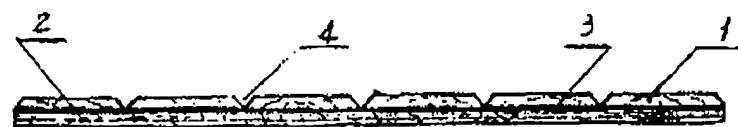


图1 (B-B)

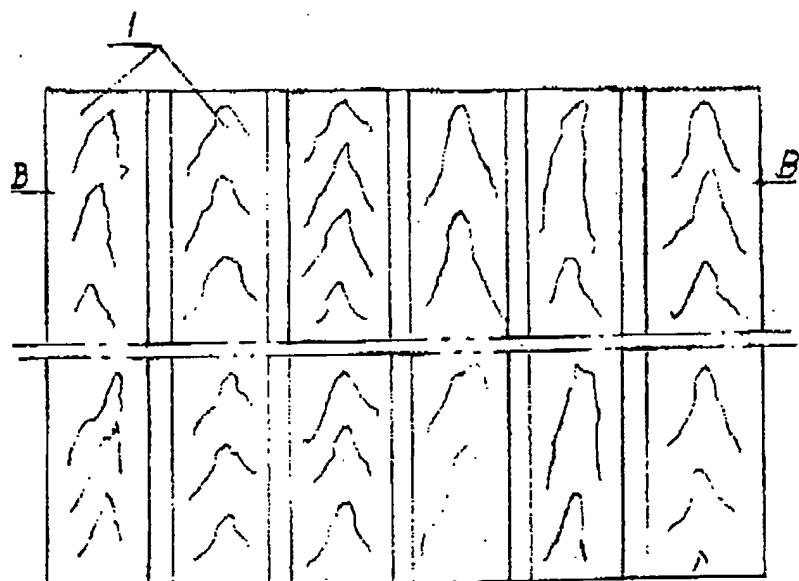


图2

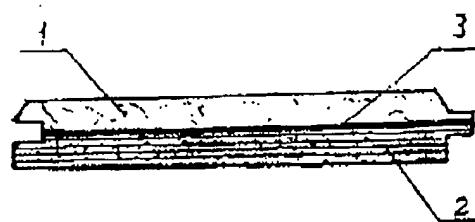


图3